ABSTRACT OF THE DISCLOSURE

An oximetry sensor that can be easily applied and attached to a portion of the body of a patient in a noninvasive manner is provided. The oximetry sensor of the present invention includes an adhesive wrap member for use with reusable pulse oximetry sensor electronics (*e.g.*, an LED assembly and a photodiode coupled with a cable) to retain the sensor in the desired position comfortably on a patient. The adhesive member includes a release liner thereover which may include an appliqué or other member thereon, for example, instructions for use. The release liner is configured for removal from the adhesive member in at least one release liner portion subsequent to attaching of the pulse oximetry sensor electronics without disturbing such positioning.